

## FEATURE

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications



## MECHANICAL DATA

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 15mg 0.00048oz

PIN	DESCRIPTION
1	Cathode
2	Anode

## Absolute Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter		Symbols	PMEG10020ELRX		Units
Maximum Repetitive Peak Reverse Voltage		$V_{RRM}$	100		V
Maximum RMS voltage		$V_{RMS}$	70		V
Maximum DC Blocking Voltage		$V_{DC}$	100		V
Maximum Average Forward Rectified Current		$I_{F(AV)}$	2.0		A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)		$I_{FSM}$	50		A
Max Instantaneous Forward Voltage at 2 A		$V_F$	0.85		V
Maximum DC Reverse Current at Rated DC Reverse Voltage	$T_a = 25^\circ\text{C}$ $T_a = 100^\circ\text{C}$	$I_R$	0.3 3		mA
Typical Junction Capacitance (1)		$C_j$	80		pF
Typical Thermal Resistance (2)		$R_{\theta JA}$	85		°C/W
Operating Junction Temperature Range		$T_j$	-55 ~ +125		°C
Storage Temperature Range		$T_{stg}$	-55 ~ +150		°C

( 1 ) Measured at 1 MHz and applied reverse voltage of 4 V D.C

( 2 ) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

## ELECTRICAL CHARACTERISTICS CURVE

Fig.1 Forward Current Derating Curve

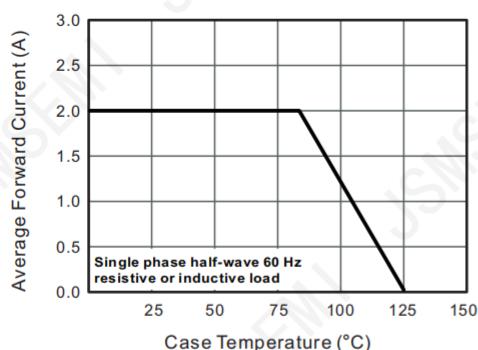


Fig.2 Typical Reverse Characteristics

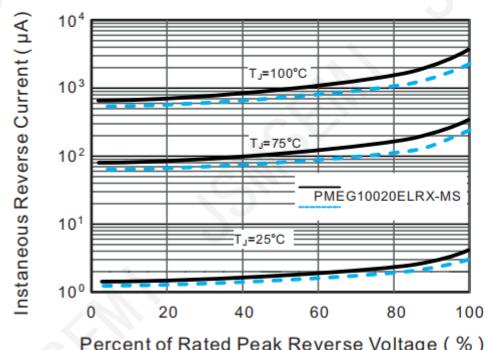


Fig.3 Typical Forward Characteristic

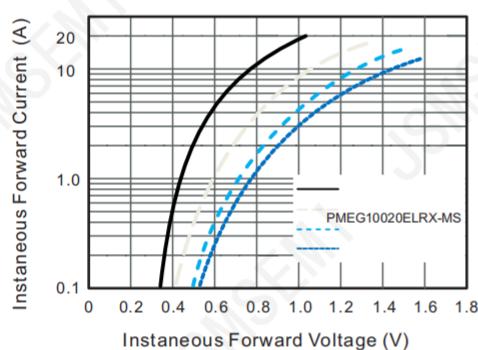


Fig.4 Typical Junction Capacitance

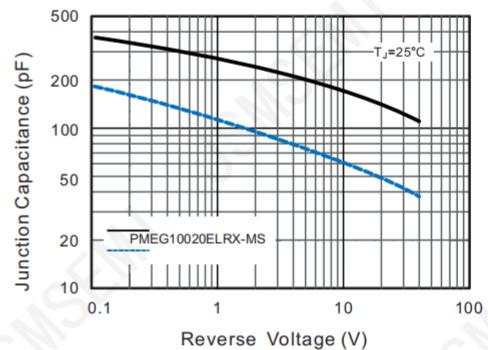


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

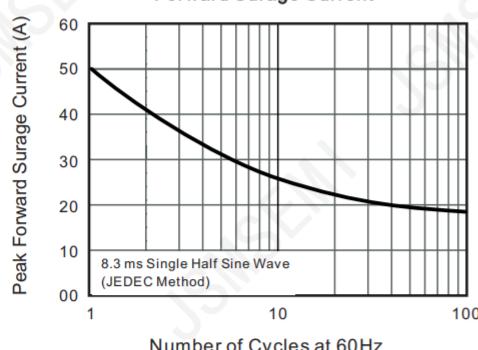
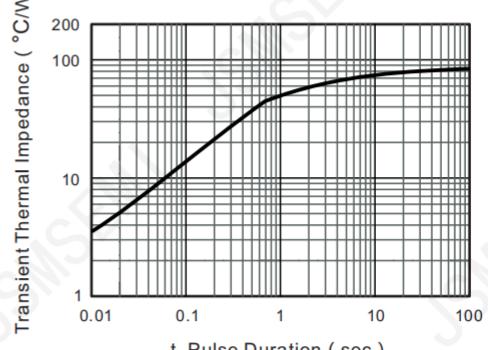
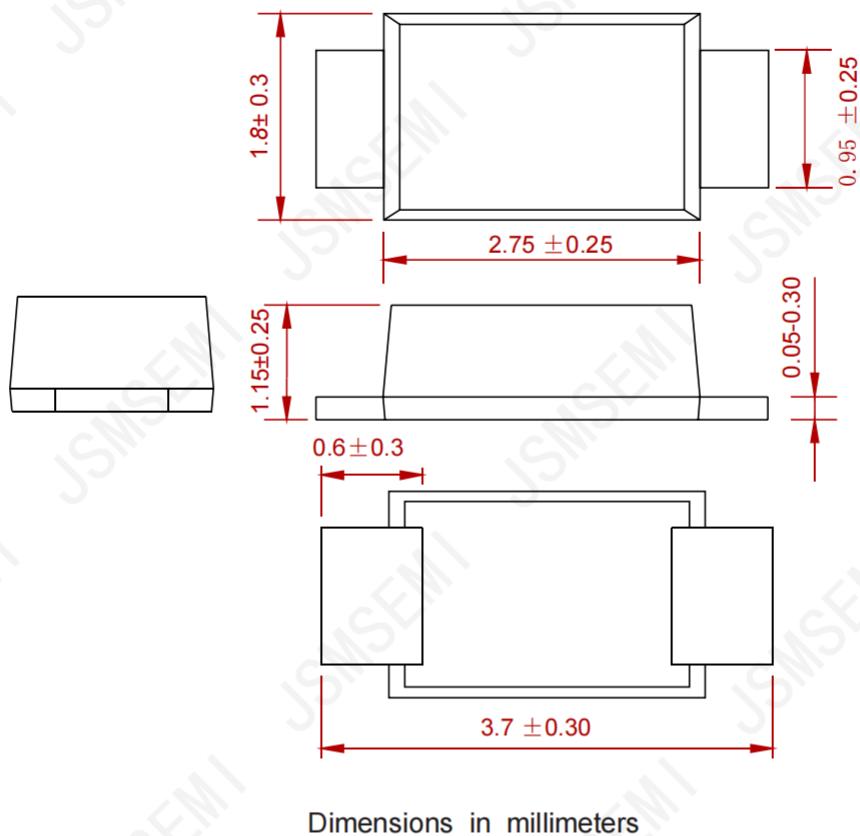


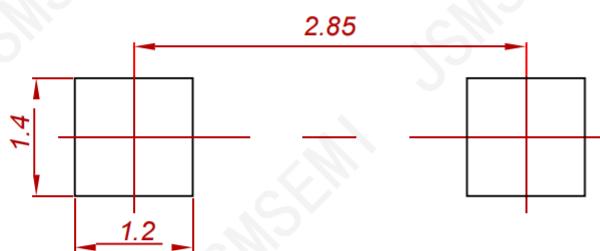
Fig.6-Typical Transient Thermal Impedance



## PACKAGE MECHANICAL DATA



## Suggested Pad Layout



## Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05$  mm.
3. The pad layout is for reference purposes only.

## Revision History

Rev.	Change	Date
V1.0	Initial version	6/27/2021

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